

REMARKS

Claims 1, 3-6, 8-10, 14 and 17 have been amended. Claims 1-17 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

1-2. Claim 9 currently stands objected to for allegedly being a duplicate of claim 8.

Claim 9 has been amended.

3. Claims 1-3, 5 and 17 currently stand rejected for allegedly being obvious in view of the combined subject matter disclosed in Siegmund's "Network Engineering" (hereinafter "Siegmund") and U.S. Patent 6,678,275 to DeGrandpre (hereinafter "DeGrandpre").

Claim 1

Claim 1 recites a method of transmitting an anisochronic data stream from a data source to a data sink over an isochronic transmission network having a plurality of channels. The method includes the steps of:

“receiving data from the data source, and reserving at least two of the plurality of channels to provide reserved channels for transmission of data from the transmitter onto the transmission network, where the cumulative transmission capacities of the reserved channels exceeds the bandwidth of the anisochronic data stream;

partitioning data of the anisochronic data stream into packets;

filling bit locations of the packets not required to transmit the anisochronic data with filler data, and providing packetized data indicative thereof; and

providing the packetized data for transmission over at least one reserved channel of the transmission network.” (cl. 1).

The Official Action contends that “*Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29), sources reserving resources (channels/bandwidth), wherein the reserved resources exceed bandwidth (page 40, line 24 thru page 41, line 3, 42, 43). Although, Siegmund indicates that there is no provision for partial utilization of 64-kbit channels in ISDN/LAN service, he does disclose the use of combining multiple 64-kbit channels (page 27). Therefore, the service of partitioning is indirectly implemented via the suggestion of combining data channels.*” (Official Action pg. 3). The Official Action recognizes that “*Siegmund is silent on filler bit locations of the packets not required to transmit the anisochronic data with filler data.*” (Official Action pg. 3), but contends that DeGrandpre discloses filler data (Official Action pgs 3-4) and that it would have been obvious to combine Siegmund with DeGrandpre. Official Action pg. 4).

However, it is respectfully submitted that a *prima facie* case of obviousness has not been made because Siegmund, upon a fair and proper reading, fails to disclose a number of features of claim 1. As a result, Siegmund cannot be properly combined with DeGrandpre to meet all of the features of claim 1.

Regarding the contention in the Official Action noted above that “*Siegmund discloses a network engineering architecture as associated in an ATM environment consist of multiple connections being set-up with respect to ISDN and B-ISDN, coupling of anisochronous data streams in association from LANs through isochronous transmission in association with ISDN or B-ISDN network (Fig. 8.77, 8.79 and 9.3, page 29),*” a fair and proper reading of Siegmund at FIG. 8.77 and the corresponding text on page 23 reveals that Siegmund merely discloses the

simple connection between two of three different LANs illustrated at different points in time, each time through an ISDN (i.e., LAN A is connected to LAN B at time x; LAN A is connected to LAN C at time y). In no way does this disclose or suggest any additional details about the LAN connections through the ISDN, and certainly no disclosure regarding an isochronic transmission network associated with the ISDN or an anisochronic data stream associated with the LANs. Instead, Siegmund merely discloses the simple concept of connecting two LANs together, without any additional detail regarding the connection, and no detail whatsoever with respect to the type of network or the type of data stream involved. Further, FIG. 8.79 and the corresponding text on page 27 of Siegmund disclose that “[t]he dynamic addition of data channels also dynamically brings costs into line with the bandwidth requirements as they arise. Fig. 8.79 illustrates this use for the bandwidth profile of Fig. 8.78.” Again, this disclosure, including FIGs. 8.78 and 8.79, fails to disclose or suggest an isochronic transmission network and an anisochronic data stream. Instead, this merely discloses an economic concept of adding data channels, with little additional technical details, what details there are being very general. Still further, FIG. 9.3 merely illustrates the simple concept of connecting two LANs together by a broadband ISDN, similar to FIG. 8.77 discussed above. Finally, page 29 of Siegmund provides an introduction to broadband ISDN (“B-ISDN”). However, the text of page 29, together with FIG. 9.1 on that page, merely postulates that B-ISDN would someday “supplant all of today’s special purpose networks,” and discusses potential results and benefits from such a configuration while providing little technical details regarding B-ISDN. Certainly this particular disclosure fails to disclose or suggest any detail regarding an isochronic transmission network and an anisochronic data stream. As a result, these cited sections of Siegmund all fail to disclose or suggest an isochronic transmission network and an anisochronic data stream, as in claim 1.

Further, regarding the contention in the Official Action noted above that “*sources reserving resources (channels/bandwidth), wherein the reserved resources exceed bandwidth (page 40, line 24 thru page 41, line 3, 42, 43),*” a fair and proper reading of Siegmund at these locations reveals that Siegmund fails to disclose the feature of claim 1 of “*where the cumulative transmission capacities of the reserved channels exceeds the bandwidth of the anisochronic data stream.*” (emphasis added). Siegmund, at these locations, discloses principles of Asynchronous Transfer Mode (“ATM”) transmission, and at the cited sections on pages 40-43, discloses that:

“The ATM principle is based on a simplified, connection-oriented type of packet switching. In this form of digital transmission, data and signaling information are exchanged in packets of limited length called ‘cells.’ The cells do not have a fixed position in a time grid as in synchronous time-division multiplex transmission; they are generated asynchronously by the sources. Instead of an application or service having permanently allocated bandwidths available, sources reserve a certain number of cells within a time slot. The resulting bandwidth must be requested by the message source when the connection is set up, in order to avoid network overloading and guarantee that the cells produced will be accepted by the receiver. The sequence of cell switching is governed by the store-and-forward method, similarly to what is done in packet switching.

ATM essentially consists of a packet-switching technique with the following modifications and selected operational features:

No link-by-link error protection. The high quality and transfer rate offered by optical fiber transmission make it possible to do away with link-by-link error protection. Services that require totally error-free transfer can employ error protection between terminals.

No link-by-linkflow control. The high transfer rate and packet handling rate make this kind of flow control impossible.

Connection-oriented operation. The transfer path for packets is established by allocation to a virtual connection between end points when the connection is set up. At this time the required resources for the virtual connection are made available and the logical channels are allocated. All packets take the same connection path while data transfer is in progress. In order to clear down the connection, the reserved resources and logical channels are released.

ATM Transmission

A cell contains user information and a header. The header identifies cells belonging to the same virtual channel. Cells are generated (as needed) by the message sources, depending on whether the source has information to transmit. If the source has no need to send information at a given time, empty cells are transmitted. A continuous cell stream results.

The method is said to be asynchronous because the bit rate required by the sources is independent of the total available bit rate. For this reason, bit transmission itself can nevertheless take place synchronously.

The ATM method proposed by ITU-T employs cells of constant length. No additional flags are needed for delimitation between cells.

Cells associated with different connections are transmitted in time-division mode. Higher-bit-rate message sources reserve more cells corresponding to their requirement. Message sources with lower bit rates need fewer cells in a corresponding time slot.” (emphasis added)

Upon a fair and proper reading of this portion of Siegmund, there is no teaching or suggestion that “*the cumulative transmission capacities of the reserved channels exceeds the bandwidth of the anisochronic data stream,*” as called for in claim 1. Instead, this portion of Siegmund is clear in that it teaches that the message sources reserve only the number of cells that are necessary for message transmission. As such, the statement in Siegmund that “*higher-bit-rate message sources reserve more cells corresponding to their requirement. Message sources with lower bit rates need fewer cells in a corresponding time slot*” discusses in a comparative context that different bit rate messages require different numbers of cells. There is no teaching or suggestion in this portion of Siegmund that certain types of messages (e.g., higher bit-rate messages) require a number of cells that exceeds the bandwidth of the data stream.

Finally, the contention in the Official Action noted above that “[a]lthough, Siegmund indicates that there is no provision for partial utilization of 64-kbit channels in ISDN/LAN service, he does disclose the use of combining multiple 64-kbit channels (page 27). Therefore, the service of partitioning is indirectly implemented via the suggestion of combining data channels” recognizes and admits that Siegmund fails to explicitly disclose the feature of claim 1 of “*partitioning data of the anisochronic data stream into packets.*” However, the contention in the Official Action noted above that “*the service of partitioning is indirectly implemented via the suggestion of combining data channels*” is incorrect because the teaching or suggestion of

“combining data channels” does not lead to the result of “partitioning data into packets,” as called for in claim 1. Instead, as Siegmund explicitly states on page 27, the combination, or “laying together,” of multiple 64-kbit channels results in larger bandwidths. This cannot be reasonably taken to teach or suggest the “partitioning of a data stream into packets,” let alone the specific feature of claim 1 of “*partitioning data of the anisochronic data stream into packets.*”

In light of all of the foregoing, it is respectfully submitted that Siegmund fails to disclose a number of features of claim 1. However, assuming for the moment without admitting as much that Siegmund and DeGrandpre could be properly combined, such a combination nevertheless fails to render obvious features of claim 1, because as discussed above Siegmund fails to disclose a number of features of claim 1.

In light of the foregoing, it is respectfully submitted that the obviousness rejection of claim 1 is now moot, and that claim 1 is in condition for allowance and should be passed to issuance.

Claim 17

Since claim 17 currently stands rejected apparently for the same rationale as claim 1, the arguments set forth hereinabove with respect to claim 1 also apply equally to claim 17. As a result, it is respectfully requested that the rejection of claim 17 is now moot and should be removed and that claim 17 is in condition for allowance and should be passed to issuance.

4. Claims 6-9 currently stand rejected for allegedly being obvious in view of Siegmund, DeGrandpre and Teichner’s “Netzwerk-Konzepte für Video- und Audiofunktionen im Auto” (hereinafter “Teichner”).

It is respectfully submitted that the rejection of these claims is now moot, since these claims depend either directly or indirectly from claim 1, which is patentable for at least the reasons discussed above.

5. The indication that claims 10-16 have been allowed is noted and appreciated.

For all the foregoing reasons, reconsideration and allowance of claims 1-17 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,

A handwritten signature in cursive script, reading "Patrick J. O'Shea". The signature is written in dark ink and is positioned above the printed name and contact information.

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